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Independent Evaluation of the California Tobacco Education Program

SYNOPSIS

Objective. To monitor the implementation of tobacco control programs and research in accordance with California's Proposition 99, approved by the voters in 1988, which increased the state's cigarette tax by 25 cents and designated one quarter of the increased revenue—approximately \$100 million per year—to develop statewide media campaigns and to fund local health departments, community-based organizations, schools, and agencies working with high risk populations.

Methods. The authors evaluated the extent and the effectiveness of the implementation independently with standardized forms developed to track any tobacco-related information and activities, local media campaigns, changes in local policies and ordinances, training sessions, and prevention and cessation programs. Activities were reported on the forms to the authors monthly or quarterly.

Results. The evaluation indicated that local health departments, community-based organizations, and other groups produced an exceedingly high volume of diverse tobacco control activities throughout the state. They reached a variety of ethnic groups and high risk populations with their programs. The data also show that local health departments and competitive grantees responded with an overall shift in their approach to tobacco control and moved from interventions focused primarily on individual people to broader, more community- and environment-oriented interventions. Additionally, analysis of the wholesale tobacco tax revenues revealed that per capita purchasing continued to decline in California at a rate greater than in the rest of the United States.

Conclusion. The evaluation demonstrated that Proposition 99 accomplished much of what it set out to do—reducing tobacco prevalence, reaching out to underserved populations, and heightening the awareness of the dangers of environmental tobacco smoke.

In 1988, the voters of California approved Proposition 99, a popularly initiated referendum that called for a 25-cent increase in the state cigarette tax and designated one-fourth of the \$600 million annual revenue from the increase for tobacco programs and research designed to reduce the prevalence of smoking. This launched not only the most intensive tobacco control intervention but also one of the most aggressive public health interventions ever undertaken.

The enabling legislation enacted to implement Proposition 99 set aside approximately \$100 million a year from the tax increase to develop statewide anti-tobacco media campaigns and fund local health departments, community-based organizations, schools, and agencies working with high risk populations, such as ethnic minorities and pregnant women, to promote tobacco prevention and cessation.¹

To evaluate the extent and effectiveness of the Proposition 99 efforts, the State Department of Health Services contracted with the University of California-San Diego (UCSD) to conduct a bi-annual statewide telephone survey of adults and young people.² San Diego State University (SDSU) was contracted to monitor and track independently the number and nature of programs implemented across the state.³ This paper focuses on the overall impact of Proposition 99 as well as the structure and findings of the SDSU process evaluation from 1990 through 1994.

Methods

Impact evaluation. Although the independent evaluation was not responsible for overall incidence and prevalence surveys, evaluators were given the task of measuring adult per capita purchasing of cigarettes from published records of excise tax revenues collected by state governments and published by tobacco trade journals. Beginning with the year 1980, data were collected for California and the rest of the United States and were analyzed through examination of trends, of percent changes, and of regression procedures.

Process evaluation activities. The first focus of the evaluation was on centrally funded institutional programs run through the local health departments designated as Local Lead Agencies (LLAs). Secondly, the evaluation examined community organizations funded through a competitive grant (CG) process. The third look was at naturally occurring "secular events," so labeled because they were not funded through the statewide initiative and may or may not have been stimulated by the campaign. For example, we conducted annual statewide surveys of physicians and dentists to monitor prevention and cessation activities among primary care providers.

Another aspect of the evaluation was the monitoring of the tobacco industry's advertising and promotional efforts to derail Proposition 99 initiatives.

A final element in the evaluation was the tracking of the efforts between and among communities set up in regional networks.

Data collection. The initial data collection effort in the evaluation process centered on the variables mandated by the original legislation and those developed jointly by staff members working on the SDSU independent evaluation, staff members of the State Department of Health Services Tobacco Control Section (TCS), and representatives from LLAs.

The LLAs agreed to track tobacco-related activities, local media coverage, changes in local tobacco policies and ordinances, training sessions, and prevention and cessation programs. At the same time, the LLAs themselves were surveyed annually by the SDSU evaluators to gather

more detailed information on their activities.

The Competitive Grantee (CG) evaluation was similar to the LLA evaluation in the use of standardized forms to collect information. Activities were reported to SDSU on a monthly basis. All LLAs and CGs participated in the data collection. It was not possible, however, to estimate missing data rates, because the forms were submitted only if a particular activity or program was performed in a given month.

The standardized evaluation forms for LLAs and CGs were revised first in 1992 based on requests from the field and on evidence that certain variables were not useful or valid. The forms were revised a second time in April 1994 at the request of the state to lessen the burden of data collection and reporting. Because of this ongoing revision process, it was impossible to assess some trends because of variables being dropped.

A separate set of standardized data collection forms were developed to record activities funded by the state in 10 regions that tied geographic areas together with the common goal of promoting tobacco control (Figure 1). The regional forms were used on a quarterly basis, beginning in May 1992. As with the LLAs and CGs, all 10 geographic regions participated in this process evaluation.

Evaluating the response of the tobacco industry to this massive effort was considered critical. The monitoring was done by the University of Southern California (USC), whose investigators assessed changes in marketing and promotion through the analyses of magazine, newspaper, and billboard advertising, as well as in-store promotions. In 1994, an additional component was added to track tobacco industry promotions like sporting and cultural events.

Through the last quarter of 1994, California's decline in wholesale cigarette packs purchased, adjusted per capita, continued at a rate faster than the rest of the United States.

Figure 1. California tobacco control regions

The 61 Local Lead Agencies (58 county and three city health departments) are listed under their respective region.

To track changes in the health care field, the SDSU evaluators conducted a statewide assessment in 1990, 1991, and 1992 of physician and dentist practices regarding tobacco cessation counseling, referrals, knowledge of tobacco control resources, and availability of cessation-prevention materials in their offices. The response rates were relatively low, ranging from 20% to 35% and typical of other mailed surveys to health care providers. To provide additional information, spot checks of physicians' offices were conducted on the responses regarding availability of materials.

The management information system. Beginning in 1992, data from LLAs, CGs, and the UCSD statewide telephone survey were periodically summarized and distributed to LLAs and CGs in a newsletter format. This quarterly newsletter contained articles, tables, and graphs detailing information about cessation, prevention, and policy-ordinance activities implemented by the various projects.

To provide comparative feedback, each newsletter contained a table with data from specific forms comparing each LLA and CG. Additionally, each LLA received an individualized insert containing graphs with specific variables so the individual LLAs could visualize their own achievements. The comparative and individual feedback was intended to provide both positive and negative reinforcement for improving the quality and quantity of standardized data reported to the evaluators.

Results

These results focus on data reported from October 1990 through March 1994.

Impact evaluation of tobacco purchasing. Through the last quarter of 1994, California's decline in wholesale cigarette purchases, adjusted per capita, continued at a rate faster than the rest of the United States. This was in spite of (a) sales of major brands of cigarettes declining from late 1992 to mid-1993 because of the introduction of generic cigarettes, and (b) patterns of immigration and out-migration, resulting in California's transition to lower average levels of education and income and, hence, a greater potential for increased smoking.^{4,5}

Figure 2 shows the decline in wholesale purchasing, adjusted per capita, in the rest of the United States and in California. Purchasing levels began to diverge in the early 1980s, a trend that accelerated immediately following the imposition of the 25-cent cigarette tax increase in January 1989. When the full campaign took effect

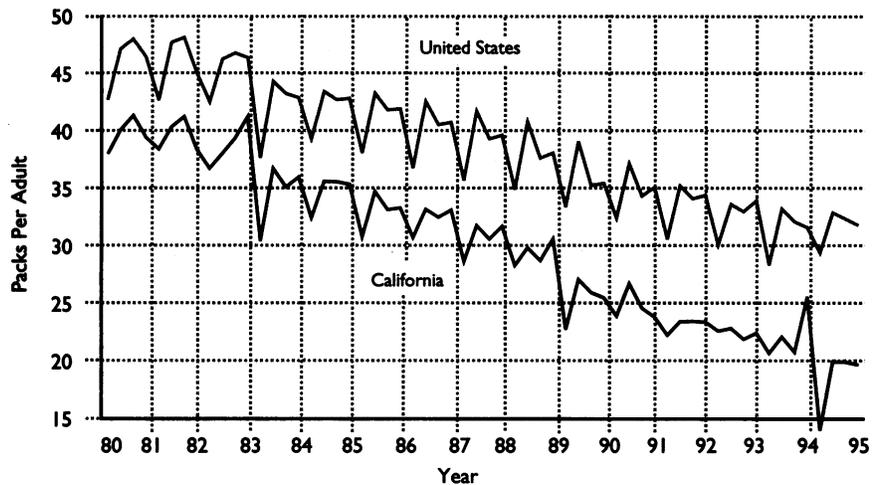
one year later, this trend appears to have accelerated even a little further, indicating some combined effect of the media and LLA and CG interventions.

Whether this divergence can be attributed to the tax, the programs, or both, the results are even more impressive from the perspective of the percentage reduction in the current levels of purchasing.

Assumptions among public health and tobacco control experts have always been that a hard core of the smoking population will find it difficult to quit and that continued reduction in consumption at this point will be even more difficult. Nevertheless, California continues to cut into this supposed hard core at a rate superior to that experienced nationwide, where overall purchasing is much higher. In terms of average quarterly percent decline, California showed an average quarterly decline of 3.6% from 1980 through 1988 and a 7.9% average quarterly decline from 1989 through the last quarter of 1994. The rest of the country showed a 2.4% 1980-88 decline and 3.2% 1989-94 decline.

Local lead agencies. LLAs implemented more than 10,000 multi-session prevention, cessation, and environmental tobacco smoke (ETS) programs during this time period. Sixty-one percent of these programs focused on prevention, 37% on cessation, and 2% on ETS. In 1993 and 1994, programs focusing solely on ETS grew in number as the issue became widely and publicly debated. Programs focusing

Figure 2. California and the rest of the United States: wholesale cigarette purchasing trends, adjusted per capita



Tobacco industry counter-efforts were reported in the form of attendance at meetings and lobbying of local council members, distribution of anti-ordinance propaganda, advertising, and formation of front groups. Industry counter-efforts were highest during 1991 when more than 17% were concentrated in policy-ordinance activities.

LLA activities reached more Latinos than any other specified ethnic group, and this trend held throughout the four years. Across every type of activity, American Indians were targeted the least often, with programs reaching this group tapering off dramatically by the end of 1993.

solely on smokeless tobacco remained few (approximately 3%) and even decreased somewhat in the first quarter of 1994.

LLAs also conducted more than 2,000 training sessions in which organizations, professionals, young people, and a myriad of other community constituents were trained in the skills of tobacco control. In the majority of cases, these sessions focused solely on cigarettes, with very few emphasizing smokeless tobacco.

Early in the program, training sessions primarily emphasized traditional prevention and cessation topics. Toward the end of 1992, however, the sessions began covering such topics as advocacy, community resources, youth access, tobacco industry tactics, and environmental tobacco smoke.

The greatest change in the types of activities LLAs were involved in, as more emphasis was placed on environmental and community level interventions, was in the area of local tobacco control policies and ordinances. Only 1% of activities were reported in this arena in 1990; more than 53% were reported in 1993. Technical assistance was the major activity in this area, largely because local health departments are not allowed to use these funds for political or lobbying efforts.

Between 1990 and 1994, there was an increase in policies and ordinances activities relating to access to minors with a concurrent decrease in activities relating to clean indoor issues.

Competitive grantees. CGs implemented more than 7,700 multi-session prevention, cessation, and ETS programs. Fewer than 2% of these programs focused solely on smokeless tobacco. As many as 25% of the programs were conducted in Spanish; 17% were conducted in a language other than Spanish or English (most often Chinese or Vietnamese).

Grantees were active in the policy-ordinance arena, with activity peaking in 1992. Of the forms submitted, 44% reported providing technical assistance, 39% enactment of a

new policy, and 17% reported revision of existing policies. The majority of policy activities focused on clean indoor air (52%); approximately 30% of activities related to limiting access by minors. In slightly more than 21% of the reports, tobacco industry counter-efforts were confirmed; industry counter-efforts were suspected in 4% of the reported activities.

CGs conducted more than 1000 training sessions in prevention, cessation, ETS, tobacco industry tactics, community resources, and advocacy.

Although the topic of prevention remained at the forefront throughout the four years, sessions regarding ETS, tobacco industry tactics, and policies increased significantly during 1993 and remained high during the first quarter of 1994.

School-age youth were most likely to be trained by CGs, followed by current tobacco users, parents, pregnant women, and out-of-school youth. More than 22,000 Californians reported attending a CG session. As with the LLAs, Latinos were targeted most often (30%), followed by

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African Americans, Asians/Pacific Islanders, and American Indians.

Regional linkage activities. All of the regions were involved in local media campaigns, with a total of 114 local campaigns reported. Three regions stood out with their use of local media campaigns: Gold Country, Los Angeles, and Tri-County together accounted for 75% of the reported campaigns, with 48% of the population.

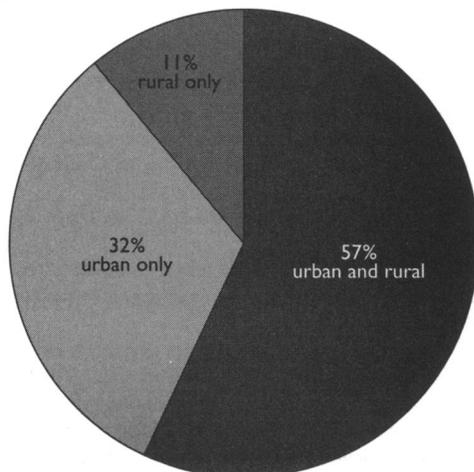
More than half (57%) of all the reported media campaigns targeted both rural and urban areas, while 32% targeted urban areas only, and 11% targeted rural areas only (Figure 3). A strong effort was made to reach ethnically diverse audiences, with almost an equal effort reported across ethnic groups. Although English was the primary language in the majority of campaigns, Spanish was used in more than 32% of the reported media activities.

A total of 130 special events were conducted by the regions, with the Gold Country responsible for 51%. The regions involved a wide variety of local community groups in these activities.

In a continuing effort to reach as many people as possible, the regions conducted more than 200 training sessions. Topics ranged from youth empowerment to ETS to smokeless tobacco to tobacco industry tactics. More than 5400 people attended these various sessions. A variety of ethnic groups participated; Latinos in 95% of the sessions, American Indians in 56%, African Americans in 54%, and Asians/Pacific Islanders in 23%.

Tobacco industry response. In California, a different type of advertising has largely replaced traditional tobacco advertising in newspapers, especially in papers with less than 100,000 circulation. Much of the advertising was in the form of between-the-pages inserts. These inserts are often full page and announce events, refute anti-tobacco charges, and make so-called socially responsible claims such as, "We

Figure 3. Geographic targets of regional media campaigns, California tobacco control



Future efforts in the area of tobacco control must take into consideration the considerable skills and resources the tobacco industry will bring to bear to minimize any damage to its image and profit, and Proposition 99 has done just that.

think smoking is for adults, not minors."

A decline in outdoor tobacco advertising was observed from 1990 to 1993, but in 1994, that trend was reversed. In the first quarter of 1994, the average number of cigarette ads observed for the monitored areas was up 26%. The upswing in outdoor tobacco advertising paralleled an increase in outdoor advertising in general and may be related to a general change in marketing strategy.

The California anti-smoking campaign has reached a level of intensity in minority-oriented newspapers nearly equivalent to the tobacco advertising in these papers. About as many anti-tobacco ads were observed in these papers as tobacco ads and promotions. The volume of cigarette ads were similar for Latino, Asian, and general audience newspapers in California—five to eight ads per 100 issues. However, the tobacco advertising rate was three times higher in California newspapers targeted to African Americans—15 ads per 100 issues.

The most striking feature of tobacco promotions in California over the past four years has been the shift away from traditional advertising toward strategies designed to reach the potential smoker more directly and countermand local, state, and Federal tobacco control efforts.

The most obvious of these new strategies is the upsurge in point-of-purchase or in-store promotional items. As tobacco advertising in traditional media outlets has decreased, in-store promotions in the form of displays, signs, give-aways and youth-oriented merchandise have increased significantly, more than doubling in California observation sites in the past two years. Initially, this strategy was carried out primarily in predominantly white neighborhoods; however, in the last year a faster rise in in-store promotions was observed in Asian neighborhoods.

Finally, one of the fastest growing trends in tobacco marketing is the sponsorship of entertainment and commu-

nity events. In California, the tobacco industry appeared particularly interested in sponsoring "growth events" whose participants are expected to grow rapidly over the next few years (for example, in Tejana music). Based on the events sampled in California, tobacco promotions reached nearly three million residents in Los Angeles and Orange counties, not including television or other media coverage of the events. Sponsorship of events tended to favor sporting venues (79%) whose attendees were inclined to be young (48% younger than 25) and Latino (28%).

Primary health care. A wide range of Proposition 99 activities involved primary care physicians, dentists, and their staff members. Twenty-five different local health departments and 10 competitive grantees trained nearly 1500 health care providers on tobacco intervention techniques. Additionally, more than 1000 prevention, cessation, and ETS programs were conducted within the health care system channel. In the data available on participants from these programs, 55% of smokers reported that a physician had counseled them to quit, 22% reported a dentist had counseled them to quit, and 33% received no such advice.⁶

In the fall of 1993, a validation study was conducted to verify certain responses to the 1992 survey of physicians and dentists. A random sample of physicians and dentist offices in San Francisco Bay Area and Los Angeles was selected for site visits. Two independent raters determined if there were no-smoking signs posted in waiting areas and if there were stop smoking brochures or other materials available in the waiting areas.

None of the physicians had stop-smoking materials available in their waiting areas, although on the survey 69% reported that they did. Seventy percent of the physicians reported to have no-smoking signs in their waiting areas, while only 15% actually did.

Of the dentist offices visited, 25% had no-smoking signs in spite of the fact that 60% reported that they did. In terms of stop smoking materials, there was 100% agreement between what was reported and observed. Unfortunately, no dentists reported having materials in their waiting rooms.

Discussion

The independent process evaluation of Proposition 99 tobacco control efforts in California involved a loosely connected set of activities and impact variables. The evaluation showed that local health departments, community-based organizations, and other groups produced an exceedingly high volume of diverse tobacco control activities throughout the state and attempted to reach a variety of ethnic groups and at-risk populations.

American Indians, as a target group, were the least likely to be targeted and reached by any program, and this trend appeared to worsen as time went on. The data also indicate that LLAs and CGs responded to the overall shift in their thinking about tobacco control and moved their interven-

tions from being individually focused to a broader, more community-oriented, environmental focus.

A failing of the process evaluation was its inability to relate specific program efforts to local impact on tobacco use. The design of the process evaluation was not originally set up to link activities to direct impact, and this became a source of frustration to tobacco control staff members. Although the management information newsletter was implemented to provide feedback to local program staff members, ultimately neither the LLAs nor the CGs found the information useful in improving program efforts. Future evaluation efforts of this scale need to be able to link the "dose" of program efforts with tobacco use "response" much more closely, both on a local and global level.

Our evaluation indicated that Proposition 99 accomplished much of what it originally set out to do: reduce tobacco prevalence, implement tobacco education programs among previously underserved groups, and heighten the awareness statewide of the dangers of environmental tobacco smoke.

Since 1988, smoking has decreased in California by 28% (more than twice as rapidly as in the rest of the country), due both to the increase in price and also the unique and extensive local health education and media programs funded through this unusual mechanism.⁷

The dedicated tax is an effective approach to tobacco education and control, especially with the possibility that public health programs may be relegated to state block grants. Furthermore, future efforts in the area of tobacco control must take into consideration the considerable skills and resources the tobacco industry will bring to bear to minimize any damage to its image and profit, and Proposition 99 has done just that.

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